

### **Amendments to the Specification**

Please add the following new heading before paragraph [0001]:

#### **FILED OF THE INVENTION**

Please replace paragraph [0001] with the following amended paragraph:

[0001] The present invention relates to an electrochemical cell, and in particular to a proton exchange membrane fuel cell (PEM fuel cell) or an electrolysis cell, ~~according to the precharacterizing clause of patent claim 1.~~

Please add the following new heading before paragraph [0002]:

#### **BACKGROUND**

Please replace paragraph [0007] with the following amended paragraph:

[0007] Furthermore, there are known solutions which use a fluid-dynamic flow of a cooling air flow onto a fuel cell stack. In the case of the solution according to Japanese patent application JP 58-100372 A, the flow resistance of the cooling air is reduced by special shaping of a flowing-in region. In the Japanese patent application JP 58 178964 A ~~JP 58-017964 A~~, a uniform distribution of cooling air onto fuel cells by air baffles is described. In Japanese patent application JP 61 185871 A ~~JP 1185871 A~~, a special flow guide for cooling air is shown.

Please add the following new heading before paragraph [0009]:

#### **SUMMARY OF THE INVENTION**

Please replace paragraph [0009] with the following amended paragraph:

[0009] The present invention provides ~~object of the invention is to develop~~ an electrochemical cell which has improved efficiency as a result of improved temperature or moisture distribution and/or reactant distribution within the cell.

Please replace paragraph [0010] with the following amended paragraph:

[0010] ~~The object is achieved by an electrochemical cell which has the features as claimed in claim 1. Advantageous configurations are provided by the subclaims.~~ In an exemplary

embodiment of the present invention, an electrochemical cell comprises a separator plate and a channel structure for supply, circulation and discharge of fluids used in an operation of the electrochemical cell. The channel structure is formed on the separator plate and includes at least one fluid flow channel. An element is arranged within the at least one fluid flow channel for independent control of at least one fluid flow. Pursuant to a feature of the present invention, the element is arranged and configured to change a flow cross section of the at least one fluid flow channel.

Please add the following new heading before paragraph [0019]:

#### BRIEF DESCRIPTION OF THE DRAWINGS

Please add the following new heading before paragraph [0030]:

#### DETAILED DESCRIPTION